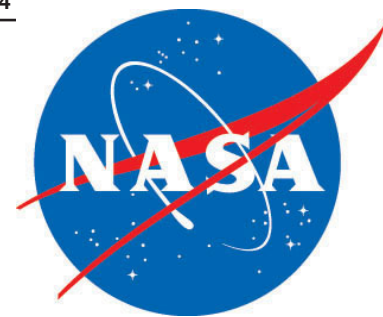


Spaceport News

John F. Kennedy Space Center - America's gateway to the universe

http://www.nasa.gov/centers/kennedy/news/snews/spnews_toc.html



Discovery home after historic mission sets up future space station growth

THE space shuttle Discovery (right) and its crew landed at NASA's Kennedy Space Center at 1:01 p.m. Nov. 7 after completing a 15-day journey of more than 6.2 million miles in space. Discovery's STS-120 mission added a key component to the International Space Station and featured an unprecedented spacewalk to repair a damaged solar array.

"This mission demonstrates the value of having humans in space and our ingenuity in solving problems," said Bill Gerstenmaier, associate administrator for space operations at NASA Headquarters in Washington.

"The teams on the ground worked around the clock, along with the crews in space, to develop a plan to fix the array. Our high level of preparedness gave us the edge necessary to make this a successful mission."

Discovery's crew of Commander Pam Melroy, Pilot George Zamka and Mission Specialists Scott Parazynski, Doug Wheelock, Stephanie Wilson, Dan Tani and European Space Agency astronaut



Paolo Nespoli delivered the Node 2 module, known as Harmony. Harmony will provide attachment points for European and Japanese laboratories to be added later this year and early in 2008.

Tani remained behind on the station as part of the Expedition 16 crew. He is scheduled to return home aboard space shuttle Atlantis on a mission targeted to launch Dec. 6. Tani replaced Clayton Anderson, who spent almost five months on the station, arriving in June aboard Atlantis. Anderson

returned with the STS-120 crew.

With Discovery and its crew safely home, the stage is set for the next phase of station assembly.

Before Atlantis' STS-122 mission delivers the European Space Agency's Columbus laboratory module to the station, Harmony must be relocated to its permanent location at the front of the complex. The station crew will conduct three spacewalks and robotically move two components to complete that task, allowing Atlantis to dock and Columbus to attach to Harmony.



Right, Commander Pamela Melroy, Pilot George Zamka and Mission Specialists Scott Parazynski, Stephanie Wilson and Doug Wheelock after landing on Runway 33 of the Shuttle Landing Facility.

(See NASA TV below for more information.)

NASA TV to cover November space station spacewalks, work and briefings

FOLLOWING the wake of space shuttle Discovery's delivery of the Harmony connecting module to the International Space Station, the station crew will conduct two more spacewalks and robotically move two components this month to prepare for delivery of a European laboratory. All of

the spacewalks and major robotics work will be broadcast live on NASA Television.

At 4:30 a.m. Nov. 20, NASA TV will broadcast live coverage as Commander Peggy Whitson and Flight Engineer Daniel Tani conduct a 6.5-hour spacewalk to hook up fluid, electrical and data lines

for the relocated mating adapter and Harmony module. A press conference will follow the spacewalk on NASA TV, originating from NASA's Johnson Space Center with questions from participating NASA sites.

At 4:30 a.m. Nov. 24, NASA TV will broadcast live coverage as

Whitson and Tani conduct a final 6.5-hour spacewalk to complete the hookup of the mating adapter and Harmony module to the station. This will leave them ready for the docking of space shuttle Atlantis and delivery of Columbus on mission STS-122.

SpaceX breaks ground on launch complex

SPACE Exploration Technologies, or SpaceX, broke ground on Nov. 2 at Launch Complex 40 to build new launch facilities at Cape Canaveral Air Force Station. The U.S. Air Force Space Command's 45th Space Wing granted a license to SpaceX to operate on Space Launch Complex 40, which was previously used for Titan 4 launches.

SpaceX will be able to launch both the Falcon 9 and Falcon 9-heavy from the site. The company is planning to debut the Falcon 9 in late 2008.

As part of NASA's Commercial Orbital Transportation Services, or COTS, competition, SpaceX will launch a Falcon 9 with a cargo-carrying payload on a series of three demonstration missions from Cape Canaveral to the International Space Station, culminating with the delivery of supplies to the orbiting laboratory. SpaceX says it intends to demonstrate its launch, maneuvering, berthing and return abilities by 2009 – a year before NASA has scheduled the end of space



Putting shovels to work at ground-breaking ceremonies for SpaceX's new Falcon 9 rocket launch facilities at Space Launch Complex 40 at Cape Canaveral are (from left) Thad Altman, Florida representative; Jeff Kottkamp, Florida lieutenant governor; Elon Musk, founder and chief executive officer of Space Exploration Technologies; U.S. Air Force Brig. Gen. Susan Helms, commander of the 45th Space Wing; Lynda Weatherman, Brevard County Economic Development Commission chief executive officer and president; Steve Koehler, president of Space Florida; Janet Petro, deputy director of NASA's Kennedy Space Center; Patricia Grace Smith, Federal Aviation Administration associate administrator for commercial space transportation; and Steve Cain, Kennedy COTS project manager.

shuttle operations.

In operation since 1965, Space Launch Complex 40 has hosted numerous launches, including two interplanetary missions: the Mars Observer on Sept. 25, 1992, and the Saturn-bound Cassini-Huygens, which rode into space on Oct. 15, 1997, atop a Titan IVB launcher.

A fire began Nov. 7 during demolition activities at the launch complex.

The Cape Canaveral Air Force Station Fire Department arrived nine minutes later and promptly extinguished the flames. There were no injuries and no damage to surrounding property.

Demolition contractors using steel cutting torches were sectioning an aging structure in preparation for removal when adjacent materials ignited. The work was monitored by a fire watch, and the fire department was summoned according to standard operating procedures.

"This kind of thing is not unheard of during large-scale demolition. That's why we have procedures in place. Everyone acted professionally and by the book, and fortunately no one was hurt," said Norman Bobczynski, SpaceX's launch site director.

Chief Executive Officer Elon Musk was informed of the situation and stated that SpaceX will work closely with officials at Cape Canaveral to investigate the fire and will make any changes deemed necessary.

NASA honors USA employee for technical excellence

THE NASA Engineering and Safety Center, known as NESC, recently honored United

Space Alliance employee Delmar Foster during ceremonies at a leadership meeting at NASA's Langley

Research Center in Virginia. The ceremony recognized individuals for their contributions to critical technical assessments over the past year.

Foster received an NESC Engineering Excellence Award in recognition "of technical expertise and outstanding proactive support in establishing the processes and techniques for SAS software utilization within the Data Mining and Trending Working Group."

The Engineering Excellence Award honors individual accomplishments of NESC job-related tasks of such magnitude and merit as to deserve special recognition.

This is the fourth year the NESC has recognized employees and NASA partners for outstanding contributions to NESC-sponsored activities and to encourage critical examination of engineering problems.



At NASA's Langley Research Center in Virginia, Ken Cameron (left), NESC deputy director for safety, and Ralph Roe, NESC director, present an NESC Engineering Excellence Award to Delmar Foster (center) of NASA's Kennedy Space Center.

Atlantis rolls to Launch Pad 39A

SPACE shuttle Atlantis rolled out to Launch Pad 39A on Nov. 10 and preparations for the STS-122 mission are moving forward.

The first motion of the shuttle out of the Vehicle Assembly Building was 4:43 a.m. The 3.4-mile journey to the launch pad took about a little more than 7 hours.

The primary payload on Atlantis is the Columbus Laboratory (see below for more about Columbus). Launch to the International Space Station is targeted for Dec. 6. The addition of this module to the space station was made possible with the installation of the Harmony Node 2 module on mission STS-120 in October.



Space Shuttle Atlantis, secured atop a mobile launch platform, nears the top of the five percent grade to the top of the hardstand on its final approach to Launch Pad 39A. The rotating service structure, adjoined to the fixed service structure at left, has been rolled back in preparation for the shuttle's arrival. After a 7-hour trip, the shuttle was hard down on the pad at 11:51 a.m.

24th shuttle mission to the space station to add Columbus Laboratory

BUILT by the European Space Agency, or ESA, Columbus will expand the research facilities of the station, providing crew members and scientists around the world the ability to conduct a variety of life, physical and materials science experiments. The module is approximately 23 feet long and 15 feet wide, allowing it to hold 10 large racks of experiments. Columbus is ESA's largest single contribution to the space station.

ESA has developed a range of payload racks, all tailored to squeeze the maximum amount of research from the minimum of space. The Biolab, for example, supports experiments on micro-organisms, cells and tissue cultures, and even small plants and small insects.

The Material Science Laboratory Electromagnetic Levitator is a facility for melting and solidifying conductive metals, alloys or semi-conductors. The Fluid Science Laboratory will accommodate experiments in the strange behavior of weightless liquids. ESA says these could bring far-reaching benefits on Earth, such as better ways to clean up oil spills and even



In the Space Station Processing Facility at NASA's Kennedy Space Center, the Columbus Laboratory is positioned on a stand where it is being displayed to the media at a special showing.

At left, an artist's rendering of the inside of the Columbus Lab as it is intended for use after its installation on the International Space Station.



improve manufacture of optical lenses.

Outside its pressurized hull, Columbus has four mounting points for external payloads. Exposed to the vacuum of space, and with an unhindered view of the Earth, science packages can investigate anything from the ability of bacteria to survive on an artificial meteorite to volcanic activity 250 miles below on the Earth.

Columbus was transferred to Launch Pad 39A on Nov. 8 in preparation for its journey to the station.

World Space Expo commemorates in space, looks to future exploration

By Steven Siceloff
Staff Writer

THUNDERING space shuttles gave way to the Thunderbirds and roaring rockets made room for a soaring Super Hornet, Eagle and Raptor during the four days of the World Space Expo on Nov. 1-4.

For the first time, the U.S. Air Force's elite aerial demonstration team known as the Thunderbirds staged a full air show from the same runway at NASA's Kennedy Space Center used by space shuttles returning from orbit.

"I never thought I would get the opportunity to do it. It's just really neat to do it," said Lt. Col. Kevin "Hollywood" Robbins, commander of the Thunderbirds.

The squadron was joined at the Shuttle Landing Facility by the most advanced fighter aircraft in the American inventory, including the Air Force F-22 Raptor and the Navy's F/A-18 Super Hornet.

"It's a once-in-a-lifetime for me," said Maj. Paul "Max" Moga, who pilots the F-22 Raptor.

A pair of F-15 Eagles, the Army's precision parachute team known as the Golden Knights and a World War II-era P-51 Mustang also took part in a weekend of air shows over the space center in Florida.

The 920th Rescue Wing, based at nearby Patrick Air Force Base and on-call during all space shuttle launches and landings, showed its capabilities with helicopters pulling an astronaut from the waters of the Banana River in a simulated recovery. The two helicopters then joined up with an HC-130 transport aircraft for an aerial refueling demonstration.

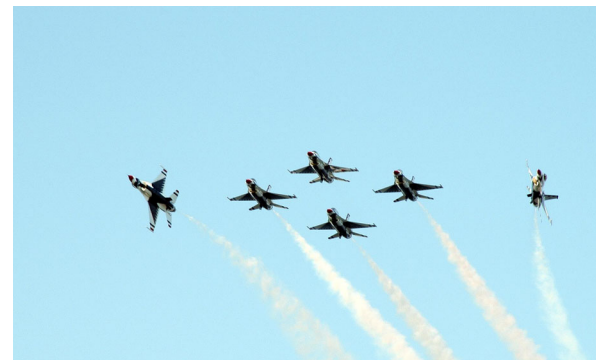
It made for an impressive roster of performers for crowds numbering about 7,000 each day on Nov. 3 and 4 at the NASA Causeway that links Kennedy and Cape Canaveral Air Force Station.



Top, crowds along the NASA Causeway watch the HC-130 transport aircraft in an aerial refueling demonstration.

Middle, the U.S. Air Force 920th Rescue Wing demonstrates its capability. This unit was responsible for Mercury and Gemini capsule recovery.

Left, a member of the U.S. Army Golden Knights demonstrates his precision skydiving and landing.



Anniversary event Mercury astronaut

By Linda Herridge
Staff Writer

THOUGH the air was crisp and the skies threatened rain, nothing could dampen the spirits of the crowd that gathered at the Kennedy Space Center Visitor Complex Rocket Garden Nov. 2 to honor the 45th anniversary of the Mercury Program during the kickoff of the first World Space Expo.

Mercury astronauts John Glenn and Scott Carpenter arrived for the VIP event in gleaming classic Corvettes. Glenn and his wife, Annie, were escorted by former Apollo astronaut Al Worden, while Carpenter was escorted by shuttle astronaut and chairman of the Astronaut Scholarship Foundation John McBride and Mercury astronaut nurse Dee O'Hara.

Preceding them, also in classic Corvettes, were the 45th Space Wing, Center Director Bill Parsons and Scolese.

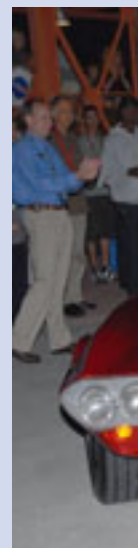
Rob Reider, who was narrator for the Aerial Salute speaker to the stage. "This is a great time to be here," Reider said as a U.S. Navy F-18 Hornet streaked across the sky.

Dan LeBlanc, chief operating officer for Delaware KSC Inc., welcomed everyone to the celebration. "We can heroes here with us tonight," LeBlanc said.

Parsons discussed the center's vital part in the future of the nearly 15,000 men and women who work here. "Space Expo," Parsons said. "As we kick off this inaugural event for NASA."

"We're celebrating the upcoming 50th anniversary of the Mercury astronauts," Parsons said. "As we build on our legacy, NASA will play a key role in returning humans to the Moon."

Scolese said Glenn's and Carpenter's flights pro-



In a cavalcade, John Glenn rides in a classic Corvette. He piloted the Mercury spacecraft that was the first U.S. manned orbit for Apollo 15.

humanity's first 50 years ns to the moon and beyond

Left, the U.S. Air Force Thunderbirds fly in formation. The squadron includes two women: Maj. Nicole Malachowski flies No. 3 jet as the right wing pilot in the diamond formation and Maj. Samantha Weeks flies the No. 6 jet as the opposing solo pilot.

ent honors tronauts



of veteran Apollo and Mercury astronauts, John the back of a Corvette driven by Al Worden. Glenn Mercury-Atlas 6 "Friendship 7" spacecraft on the first orbital mission. Worden was command module pilot

U.S. Air Force Brig. Gen. Susan Helms of and NASA Associate Administrator Chris

ute to 50 Years in Space, welcomed each at Kennedy for the World Space Expo," cross the sky overhead in salute.

are North Companies Parks and Resorts at We're so proud to have these two Ameri-

ture of the space program. "On behalf e at Kennedy, I welcome you to World ugural event, it marks an exciting time

ary of NASA and are honoring our Mer-rich heritage in space exploration...Ken-moon and beyond."

ved that America was in space to stay.

Roaring Raptor stuns, dazzles in rare performance at Kennedy

By Steven Siceloff
Staff Writer

DARTING through tight loops, snapping into rolls and roaring through unexpected starts and stops, the F-22 Raptor flies like a wild animal.

But the man at the controls says the cutting-edge fighter jet is remarkably tame to pilot.

U.S. Air Force Maj. Paul Moga, whose call sign is "Max," showed off the Raptor at NASA's Kennedy Space Center in Florida during three performances at the first World Space Expo held Nov. 1-4.

Although Moga used the jet's



Maj. Paul Moga

twin engines to rip through the air on passes reaching Mach 0.94, the maneuvers that took him sharply skyward or showed off a tight circle turn were the ones no other performer was able to match.

It was a rare sight for air show audiences anywhere in the world because the Raptor was too new for aerial demonstrations until this year.

"Having flown another aircraft, being the F-15C, when I'm doing some of the things I do in this demo in the Raptor, sometimes I actually can't believe that I'm doing it," Moga said.

"I can't believe that the aircraft is allowing me to execute those maneuvers, and allowing me to execute them safe. I mean, I'm totally under complete control throughout the whole demo."

The Raptor's engines are strong

enough to make the plane cruise at supersonic speeds, but the key to its tight turns and exotic demonstrations is a set of robust ramps that can steer the exhaust up and down.

It's a technology that NASA helped develop with the X-31 aircraft.

For Moga, incorporating that technology safely into the demonstration flights was one of the challenges of choreographing the show.

"Really, what I'm trying to display at an air show is primarily the power and maneuverability of the aircraft," Moga said.

"Those two alone truly set it apart from anything that is in the world right now."

During a particularly stunning maneuver that is a standard for Raptor flying, Moga pulled the aircraft straight up, but let the jet stall and start sliding backward while its nose fell forward. He let the aircraft flutter a bit before turning up the engines again and steering straight out of the fall with no problem.

It was enough to make other fighter pilots watching the show shake their heads.

"Even though there's a couple times where it looks like I'm out of control and falling like a leaf to the Earth, I am in complete control of the aircraft and that alone speaks to how capable this airframe is," he said.



A P-51 Mustang tries to keep pace with a U.S. Air Force F-22 Raptor during the World Space Expo aerial salute at NASA's Kennedy Space Center.

U.S. Army Golden Knights precision skydiving team members presented Glenn and Carpenter with commemorative Mercury mission flags.

Both Mercury astronauts commented on early training experiences, challenges with the Atlas rockets and their hopes for the future of NASA's space program.

Glenn said training was rather difficult in the human centrifuge and desert training was interesting. Carpenter said pre- and post-flight times were difficult with the loss of anonymity.

Glenn and Carpenter would like to see the space program return humans to the moon and take them to Mars. Glenn would not

want to cut back on science on the International Space Station and would like to see six people living and working on the station.

"We are doing what we should do," Carpenter said. "To explore the moon, Mars and beyond is inevitable. Just wait — you ain't seen nothing yet."

FIRST robotics teams seek Kennedy mentors

By Linda Herridge
Staff Writer

ANDY Bradley, an aerospace technologist in Kennedy Space Center's Engineering Directorate, enjoys mentoring "Pink Team" students for the FIRST competition, also known as For Inspiration and Recognition of Science and Technology Robotics.

Bradley and several Kennedy workers, including Bill Benson and Jon Bauschlicher of the Launch Services Program, are gearing up to once again mentor Brevard County high school students and prepare them for the annual team event.

FIRST includes 130,000 students, 10,700 robots, 37,000 mentors and 27,000 event volunteers each year.

Though the students benefit from the leadership and guidance,

Bradley said workers at Kennedy also benefit from FIRST in several ways.

"Working here, engineers go through the development cycle and learn the ropes in just six weeks," Bradley said. "What we do for FIRST is very similar. We are given a difficult challenge and incredibly short deadline, and we come together as a team to find a solution." He said mentors provide direction and hands-on skills to help students design a robot for the annual competition held in the spring in Atlanta.

There are eight FIRST teams in Brevard County schools, with Kennedy mentors supporting Rockledge/Cocoa Beach/Viera High Schools' Pink Team and Cocoa High School's Bionic Tigers.

Benson, an aerospace technologist, and Bauschlicher, a guidance, navigation and controls analyst,

are returning for their fifth and third year, respectively, to mentor the Bionic Tigers team.

"It makes engineers and the things we do real for the kids who, before this exposure, might have thought that engineering was either beyond their reach or something they were not

interested in doing," Bauschlicher said.

Benson said mentoring establishes relationships between current NASA employees and future engineers and scientists. It also provided him an opportunity to enhance his leadership and engineering skills by working with a small team to develop new hardware in a short period of time, thus making him a more effective NASA employee.

"FIRST is a great program, but it takes mentors to make it happen," Center Director Bill Parsons said. "Kennedy civil servants and contractors who contribute to this program are helping to develop the next generation of America's technical work force."

Higher Education Programs Specialist Dr. Lesley Garner said there are FIRST mentors at all of NASA's centers. Garner is Kennedy's mentor coordinator in the Education Division of the External Relations Directorate. She is looking for more workers to get involved in the FIRST program, possibly expanding to other schools in the county.

Brevard Schools Superintendent Dr. Richard DiPatri would like to see a FIRST team in each high school by the end of the 2009-



The Bionic Tigers.

2010 school year.

"For now, we encourage students where a school does not have its own team to join a team from a neighboring school."

DiPatri said the program is an outstanding example of how to effectively inspire and encourage students to pursue careers in engineering, science, auto mechanics, technology and other careers important to the country.

"It provides a wonderful opportunity for students of all ability levels to engage in a team process with sportsmanship and friendly competition as hallmarks of the program," DiPatri said.

For more information about FIRST, visit www.usfirst.org. To become a FIRST mentor, contact Garner at 321-867-3623 or Lesley.C.Garner@nasa.gov.



The Pink Team.

Panel provides updates on Ares I-X test flight progress

By Linda Herridge
Staff Writer

APANEL discussion featuring updates on work for the Ares I-X test flight was hosted by the Kennedy Space Center Engineering Academy at the Training Auditorium. Presenting to a full house of NASA and contractor personnel were panel members Jon Cowart, NASA Ground Systems Integrated Product team lead; Steve Sullivan, Kennedy Ares I-X chief engineer, and Shaun Green, Kennedy Ares I-X deputy chief engineer.

Sullivan's overview of the Ares

I-X test vehicle included updates on hardware manufacturing and delivery to Kennedy. "We are less than one year from the start of hardware delivery to Kennedy and we're 18 months from launch of our first test flight," Sullivan said.

Sullivan said the flight test vehicle elements and components will be fabricated and assembled at multiple sites and then transported to Kennedy for integration and launch.

The vehicle will be outfitted with 753 developmental flight

Right, Jon Cowart, team lead

(See PANEL, Page 8)



Remembering Our Heritage

40 years ago: November brings busy week to Eastern Range

By Kay Grinter
Reference Librarian

THE launch activity of the United States steadily increased until 1966, when it peaked at 77 commercial, military and NASA launches, a record that still stands. There were a respectable 61 launches in 1967.

The Eastern Test Range was especially busy in early November 1967. Three different rockets were launched successfully between Nov. 5 and 9, a span of just five days. A successful fourth launch from the Western Range on Nov. 10 put the NASA family in the right frame of mind for the Thanksgiving season.

First up, on Nov. 5, was the Hughes-built Applications Technology Satellite-3 from Complex 12 on Cape Canaveral. Launched aboard an Atlas-Agena D, its nine experiments were designed to improve spacecraft technology, develop long-life control systems, advance spacecraft communications and improve long-range weather predictions. ATS-3 was the last spacecraft to be launched from Complex 12.

On Nov. 7 two days later, Surveyor-6 was boosted into orbit by a General Dynamics-built Atlas-Centaur from Pad 36B on Cape Canaveral. Among Surveyor's objectives

was the development of the technology for a lunar soft-landing to support the Apollo Program. Once Surveyor-6 was on the moon, its vernier engines were fired to accomplish the first rocket-powered liftoff from the lunar surface.

The third launch on Nov. 9 was the first unmanned all-up test of the Saturn V vehicle. Apollo 4 launched from Launch Pad 39A at Kennedy Space Center.

George Meyer was a pad safety supervisor for Pan American, the Range support contractor. Now a youthful 85 and retired, he was on station for all three of these launches. "I was assigned to the impact convoy command near the pads for the ATS and Surveyor launches," he recalled. "One of our responsibilities was to inspect the pad and give the 'all clear' following launch. I was also in the firing room for the Saturn V test."

Louis Ullian was chief engineer for Range Safety for the U.S. Air Force Eastern Test Range and was on console in the Range Control Center, known as the RCC, for all three launches. Retired after 38 years of service, he recalled: "We worked some pretty long hours then, and there were cots available in the RCC. After the Surveyor-6 launch, I fell asleep outside on the center's steps. The Range Commander found me and sent me back



Missile Row, Cape Canaveral

inside to finish my nap before I drove home."

The fourth launch during this busy week was of a McDonnell Douglas-built Thrust Augmented Improved Delta from Space Launch Complex 2E at Vandenberg Air Force Base, Calif., on Nov. 10. ESSA-4, the fourth RCA-built Environmental Science Services

Administration meteorological satellite in the series, was designed to provide both global and local cloud-cover pictures daily.

How do jubilant employees celebrate a winning streak? Like the rest of the American work force, of course, with well-deserved time off spent with family and friends, giving thanks and eating turkey.

NASA employees of the month: November



Kevin Zari of International Space Station/Payload Processing; Rebecca Witt of Information Technology and Communications Services; Ralph Gelpi of the Launch Integration Office; and Nancy W. Hoffman and Gerald M. Stahl with Engineering Development.

Explorer program event looking for past employees

ASERIES of exciting activities on Jan. 31 in the Cape Canaveral area will mark the 50th anniversary of the launch of America's first satellite, Explorer 1, on a Jupiter C Rocket from the Cape.

The event will include a banquet sponsored by the NASA Alumni League, the Redstone Missile Pioneers, the U.S. Air Force Space and Missile Museum in Cape Canaveral and NASA's Kennedy Space Center.

Event coordinator Norman Perry is seeking reunion participants who were involved in the Explorer program with the U.S. Army Ballistic Missile Agency, Jet Propulsion Lab, U.S. Air Force or supporting contractors on Jan. 31, 1958.

For more information about the event, contact Perry at 321-480-0688.

Wyle employees walk the talk for safety

By Jennifer Wolfinger
Staff Writer

IT'S hard enough for one person to go more than two years without suffering an injury that keeps them away from work, let alone more than 250 people avoiding this problem.

On Oct. 10, the Wyle Laboratories work force accrued one million hours without "lost-time injuries," which are incidents that require time to be missed from work. This is particularly impressive because the workers are responsible for sensitive laboratories, propellants and life support services, as well as the systems engineering, operation, maintenance and use of chemical and personal protective equipment.

Wyle is part of the Space Gateway Support Joint Base Operations Support Contract team. Wyle workers handle potentially

hazardous cryogenics, hypergolic, high-pressure gases and special commodities, and manufacture liquid air used by government and contractor personnel.

The company manages more than 35 miles of high-pressure gaseous nitrogen and helium pipelines at Kennedy that support many of the launch and flight hardware complexes. Wyle also operates and maintains equipment used to find defects in space shuttle and rocket systems and components.

"This admirable streak is one of the longest records on the spaceport. The entire JBOSC team congratulates the Wyle employees and George Hauer for his leadership as a JBOSC team partner," said Sam Gutierrez, Space Gateway Support public affairs and government relations manager.

From Oct. 29 to 31, the team's safe practices were recognized



Employees with Wyle Laboratories enjoy a luncheon in recognition of their outstanding safety and health record for the past two years. Management hosted the events to encourage camaraderie among the more than 250 employees at Kennedy.

with various luncheons and speaker events. According to Gutierrez, Wyle management was generous in encouraging employees to spend this time to build camaraderie. SGS and the Wyle Safety and Health Office strives to ensure their employees work in areas and with tools and equipment that are safe and healthy.

Company leaders and employ-

ees say they are also dedicated to the Voluntary Protection Program, which recognizes and promotes effective safety and health management. Through their commitment, employees have certain rights which include protection from discrimination for their health and safety duties, and access to results of inspections and accident investigations.

PANEL . . . Continued from Page 6

instrumentation sensors that will take thermal, structural, trajectory, aerodynamics and shock measurements during flight.

Sullivan said the vehicle will be autonomous and use the current shuttle range safety system and ground telemetry during launch.

Cowart discussed progress on ground support equipment and facilities including Launch Pad 39B modifications to the gaseous oxygen vent arm, first-stage avionics module access and lightning protection system. He said work is under way to provide design, analysis and the equipment necessary for access to the solid rocket booster igniters, avionics module and upper stage.

"We will have a Vehicle Assembly Building high bay, launch pad and firing room ready in time for the test flight," Cowart said.

The integration product team will also provide design, analysis and equipment needed for important elements including mobile launch platform vehicle stabilization and the sound suppression water system.

Shirish Patel, the Payload Rack Checkout System manager in the ground systems division of the International Space Station and Spacecraft Processing Directorate, attended the panel discussion. He said he has attended several of the Kennedy Engineering Academy events because they are very informative and he appreciates the knowledge shared by the experts.

"It is great to hear about past projects and how they were successfully accomplished," Patel said. "It's also important to gain knowledge on future vehicle design, capabilities, planned tests and schedules."

The center's Engineering Directorate created the Kennedy Engineering Academy to bring engineering resources together to create a culture of engineering excellence.

According to Jack Fox, the directorate's management support office manager, the academy encourages engineers to learn continuously, inquire constantly and share openly within and beyond the engineering community.

NASA showcases inflatable habitat for Antarctica

NASA, the National Science Foundation and ILC Dover recently unveiled an Antarctic-bound inflatable habitat at ILC's facility at One Moonwalker Road in Frederica, Del.

The habitat, being developed under NASA's Innovative Partnership Program, will be a component of the McMurdo Station in Antarctica from January 2008 through February 2009.

Using reports from explorers braving the harsh Antarctic environment and data collected from the habitat's sensors, designers will evaluate the concept of using inflatable structures to support future explorers on the moon or Mars.



John F. Kennedy Space Center

Spaceport News

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